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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09 732,123 | 12 07 2000 | Morris M. Amon | 10242 | 9609 |

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ExxonMobil Chemical Company
P.O. Box 2149
Baytown, TX 77522

EXAMINER

VO, HAI

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1771

DATE MAILED: 07 31 2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09.732.123

Examiner

Hai Vo

Applicant(s)

AMON, MORIS M

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/1/02
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 7-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-6 in Paper No. 6 is acknowledged. The traversal is on the ground(s) that the claimed thermoplastic, open-celled, porous polymeric film layer can not be made by chemical- or corona-treatment processes. This is not found persuasive because the claimed product can be made by providing various coating layers on the porous substrate (see rejections below).

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, and 6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sheu et al (US 5,837,377).

Sheu discloses a hydrophilic article including a porous substrate, an ionic polymeric layer on the substrate and a disordered polyelectrolyte coating ionically bonded to

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the polymeric layer (abstract). The porous substrate has no measurable water contact angle such that it will completely wet out when one or more water drops are applied to the coating surface (column 45-54), i.e., the contact angle can be approximately 0 degree. Further table IV shows that the receding water contact angle of less than 35 degrees. Sheu discloses the porous substrate further including a porous matrices to have large surface area to volume ratio and superior continuous passage of a liquid either laterally or perpendicular to the plane of a membrane or other matrix (column 5, lines 6-13). The examiner interprets that such a presence of the porous matrices would cause the porous substrate inherently having the pore volume fraction within the range as set forth in the claims. Since the water contact angle and the pore volume fraction together dictate the pore accessibility (see page 10 of the specification) and the porous substrate having the water contact angle and the pore volume fraction meeting the specific range as required by the claims, the pore accessibility would be inherently present. With regard to claims 2-4, the substrate is made of polypropylene and can be a monolayer or a multilayer film (column 3, lines 38-48 and column 4, lines 35-37). It is the examiner's position that the article of Sheu is identical to or only slightly different than the claimed article prepared by the method of the claim, because both articles use the same materials having the same water contact angle, and pore volume fraction. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product

in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,291 (Fed. Cir. 1983). The Sheu reference either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Sheu. Sheu anticipates or strongly suggests the claimed subject matter.

5. Claims 1-3, and 6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Pall (US 4,340,479). Pall¹¹ discloses a hydrophilic polyamide membrane having a substantially zero contact angle with water and having pores being uniform from the surface to surface (claim 29 and tables IV-VI). Since the water contact angle and the pore volume fraction together dictate the pore accessibility (see page 10 of the specification) and the porous membrane having the water contact angle and the pore volume fraction meeting the specific range as required by the claims, the pore accessibility would be inherently present. Pall discloses the membrane further having a substrate support (column 24, line 56 et seq.). It is the examiner's position that the article of Pall is identical to or only slightly different than the claimed article prepared by the method

of the claim, because both articles use the same materials having the same water contact angle, and pore volume fraction. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,291 (Fed. Cir. 1983). The Pall reference either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Pall. Pall anticipates or strongly suggests the claimed subject matter.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheu et al (US 5,837,377) as applied to claim 1 above, in view of Chung (US 5,837,365). Sheu is silent as to the porous substrate being isotactic polypropylene. Chung teaches a hydrophilic membrane made from isotactic polypropylene (abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ isotactic polypropylene to be a porous substrate of Sheu motivated

by the desire to obtain an article that is dimensionally stable and permanently hydrophilic under operating conditions.

Response to Arguments

7. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.
8. The 103 art rejections in Paper no. 5 have been overcome by the present response.
9. The 112 claim rejections and specification objections in Paper no. 5 have been overcome by the present amendment.


Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on Monday to Friday, 8:30 to 5:00 (EAST). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Hai Vo
July 18, 2002



TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700